

Excerpted from Nathan Allen, MD, *Physical Culture in Amherst College*. Lowell, Mass: Stone and Huse; 1869. Presented to the Board of Trustees of Amherst College, at their annual meeting, July 8, 1869.

**AT THE ANNUAL MEETING OF** the Trustees, August 8th, 1861, Edward Hitchcock, M.D., a graduate of the College and of the Medical School of Harvard University . . . was appointed professor [of hygiene and physical education] in this department [of physical culture]. And in his first report to the Trustees, Dr. Hitchcock remarks: "I am agreeably surprised that the interest has been kept up during the year in this department, as it certainly has. . . . During a portion of the exercises, I urge . . . the necessity of introducing playful exercises, such as running in grotesque attitudes, singing college songs, &c.

**Nathan Allen, MD (1813–1889).**  
**Source.** Prints and Photographs Collection, History of Medicine Division, National Library of Medicine.

## Physical Culture in Amherst College

Sometimes this may seem boisterous and undignified, but it seems desirable to me that a portion of the animal spirits should be worked off inside the stone walls of the gymnasium, under the eye of a college officer, rather than out of doors, rendering night hideous. . . ."

Each class has a uniform of its own, and forming together in a line, in the lower room, marches in regular order into the upper hall under its respective captain, frequently singing a lively song: the roll is then called by the Professor, absences and deportment marked; the members of the class then dividing into sections, and obtaining their dumb bells, Indian clubs or wands, take their places in the central portions of the hall, where they go through with an almost endless variety of evolutions, assuming every position of the legs, arms and body possible. It is intended by the kind and variety of movement to exercise every muscle of the body in a manner to afford pleasure, not fatigue, and under such circumstances as to keep up an increasing interest to the close of every performance. These movements are made sometimes with great rapidity, and at other times very slowly,

and then again interchanged from one kind to another, so that they shall not tire, and are performed apparently with remarkable ease and zest. . . .

[In] an Institution where a large body of students require daily exercise, with as little exposure and loss of time as possible, the lighter gymnastics as here practiced are undoubtedly best adapted to effect the object intended. It is surprising what a great number and variety of exercises are here devised and practiced, amounting in the course of the year to some five hundred. The design is, that all the muscles of the body should be exercised in a manner to equalize best the circulation of the blood,—to expand the lungs,—to aid the stomach in the digestion of food,—to strengthen the joints, develop all parts of the body in harmony with the most efficient action of the brain. Thus not only agility and strength of the limbs are acquired, but the vital forces of the system—fed from their natural sources of nutrition, absorption and respiration—are most abundantly supplied. The true course pointed out for physical exercise is, imitate the natural action of the muscles, or, in other words, fol-

low the laws of nature in bringing the system into the highest state of physical health compatible with mental exercise. If there is danger of injury from any source in this system, it will arise either from the too rapid movements of the muscles, or from excessive exhaustion of the system. Both these extremes should be carefully watched and guarded against. . . .

When the erection of a Gymnasium was first agitated, and even for some time after gymnastics were introduced, it was said by some persons that the whole thing was an experiment; that after the novelty was over the interest would soon subside, and the enterprise would prove a failure. It is now eight years since this department was established,—eight different classes, numbering in all over six hundred students, have taken part in its exercises, and four classes have enjoyed its benefits throughout their whole collegiate course. What then has been the effect of these upon the health of the students, as well as upon the sanitary condition of the Institution? This may be exhibited in a variety of ways.

1st. There has been a decided improvement in the very countenances and general physique of students. Instead of the pale, sickly and sallow complexion once very commonly seen, with an occasional lean, care-worn and haggard look, we now witness very generally, fresh, ruddy and healthy countenances, indicative of a higher degree of vitality, and that the vital currents, enriched by nutrition and oxygen, have a free and equal circulation throughout the whole system. . . .

2nd. In the use of the limbs and the body,—in the physical

movements and conduct of students generally, there has been, we think, decided improvement. Once the awkwardness of manner and the ungraceful bearing of scholars were matters of common remark, and such characteristics not unfrequently followed them through life. This resulted not so much from the want of early training and instruction on this subject, as from the formation of bad habits in study, and the long continued neglect of proper exercise. It was frequently exhibited in stiffness of the joints, a clumsy use of the limbs, in round shoulders and a stooping posture, and sometimes by a countenance set, stern and almost devoid of expression. Now gymnastics, when properly practiced, are calculated to produce in this respect, a surprising effect upon the use of all parts of the body, as well as upon its development. They give not only agility and strength to all the muscles, but a quick and ready control of them, thereby begetting an easy and graceful carriage of the person. In other words, they tend to bring out the most important elements of a polished manner in the natural and dignified carriage of the body, in the easy and graceful movements of all the limbs, together with those expressions of countenance and those gestures which constitute the highest style of eloquence, whether in conversation or public speaking. . . .

3rd. The practice of gymnastics *in concert* is calculated to beget personal sympathy, cheerfulness and buoyancy of spirits. The fact that a large body of students go through with precisely the same exercises together, at the same time under the same general influences,—and these exercises continued for years,—cre-

ates a peculiar kind of sympathy, of interest and affection. In some respects it resembles the common practice of large companies eating and drinking together as expressive of their mutual goodwill and friendship. It brings a whole class upon one common level, and in personal contact in such a variety of ways, that it tends to bind its members together by the strongest sympathies and bonds of fellowship. . . . All this with improved circulation, digestion and respiration must, in the very nature of things, produce cheerfulness, hopefulness and buoyancy of spirits, expelling from the mind all despondency, melancholy, and “the blues.”

4th. We come now to consider what has been the effect more directly upon the health of the students, and the sanitary condition of the Institution. It is needless to state how many students formerly impaired or broke down their constitutions for want of sufficient exercise, or from irregular or excessive hours of study, or from some improper habits, or from want of suitable attention to diet, sleep or some other physical law. Perhaps the effects of violated law were not always visible at the time, and did not apparently impede the college course, but the seeds *were here sown* which afterwards brought on disease and premature death, or crippled the energies and limited the usefulness through after life. . . . In a community thus trained and instructed the more common complaints, such as colds, headaches, sore throats, feverish attacks, will seldom occur, and the disease to which scholars are peculiarly liable, such as dyspepsia, neuralgia and consumption stand far less chance of finding victims. Any

skillful and experienced physician will testify at once, that such a community is possessed of a wonderful power to prevent as well as throw off disease. The common proverbs, “*a stitch in time saves nine*,” and “*an ounce of prevention is worth a pound of cure*,” are not more truthful than the statement here made of the remarkable exemption from disease of a community trained and educated as above described. . . .

There is still another very important consideration, viz: has the standard of scholarship in college been raised by means of gymnastics? . . . It may be that some individuals in a class formerly reached as high scholarship as any now do; but the *aggregate* scholarship of a whole class, we are confident, is higher now than it once was, and, to say the least, is much easier obtained, with fewer hours of study, and less loss of health and life. . . .

There is another advantage from these exercises worthy of notice, that is in preventing vicious and irregular habits. While no system of gymnastics alone can be expected to break up settled habits of dissipation, such as intemperance, licentiousness, and the excessive use of tobacco or any other stimulant, still, combined with other good influences they have a direct tendency to forestall or arrest such practices by giving a safe vent to the animal spirits, by regularity of physical exercise, by improving the general health and producing a more normal condition of the brain. . . .

It is found that a *regular system of gymnastics* operates in a variety of ways as a powerful auxiliary of discipline; that it answers as a kind of safety valve to let off in an indirect way that excess of animal spirits which is character-

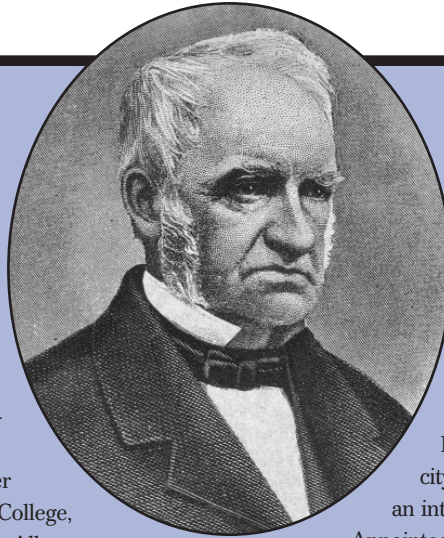


# Nathan Allen

**NATHAN ALLEN WAS BORN IN** 1813 in Princeton, Mass, and grew up working on his family's farm. When the family couldn't afford to send him to college, a friend helped pay his tuition at Amherst College, where he graduated in 1836 and then spent some time teaching. He later entered the medical department of Pennsylvania College, earning his MD in 1841. While in medical school, Allen was appointed editor of the *American Phrenological Journal and Miscellany*, to which he contributed many editorials, letters, and book reviews. He then settled in Lowell, Mass, and practiced medicine there for the rest of his life.<sup>1</sup>

Allen was an advocate of public health and preventive medicine, believing that it was far preferable to prevent disease than to cure it. He argued for a "great general law of propagation applicable to all organic life" whereby the overactivity of any one organ tended to diminish the activity of other organs and lead to diminished fertility.<sup>2</sup> He tried to demonstrate that the low birth rate of native New Englanders (compared with that of immigrants) was due to impaired physical condition. In 1850, Allen published *An Essay on the Opium Trade*, an attack on the British for promoting the cultivation of opium in India and forcing it on the Chinese people.<sup>3</sup> He subsequently wrote numerous papers on population and vital statistics, physical and mental culture, insanity and heredity, state medicine and public health, obstetrics and maternity, and the education of women. Some 40 of his articles were later collected and republished in *Physical Development, or the Laws Governing the Human System*.<sup>4</sup>

Allen was a leading voice in the debate over the social and philosophical questions of his day. He was known as a friend to the poor and destitute, and a reformer of institutions for their care, urging the more humane treatment of prisoners and the insane. He earned the wrath of many wealthy and influential citizens by becoming a strong



# Social Reformer and Health Advocate

public advocate of the "ten hour law" to limit the maximum hours of daily work.

Allen was appointed to the Massachusetts State Board of Charities and the Lowell Board of Health and gave many years of free service to the city dispensary. In 1872, he was named a delegate to an international congress in London on prison reform.

Appointed commissioner of lunacy for Massachusetts, he was responsible for an 1875 report advocating reform of that state's mental asylums. In 1857, Allen was chosen by the Massachusetts legislature to be a trustee of Amherst College, a post he held until his death in 1889. In that capacity, he was instrumental in establishing the Department of Physical Culture and the ceaseless promotion of health and physical education. ■

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istic of some young men, and which not infrequently leads them into trouble or conflict with authority. Again it serves with others as a kind of regulator to the system, exercising certain parts of it to such an extent as to produce weariness and fatigue, so that the individual seeks repose; and with another class it tends to remove any unnatural or

innate weakness of the frame, and by such improvements serves to equalize and regulate all the forces of nature. . . . Every well-informed teacher, and especially one versed in the laws of physiology, will see almost intuitively the great importance and convenience of having such a standard of law for *private* as well as *public* discipline. . . .

There is another, a higher and more commanding position from which this subject may be viewed:—it is in the light of *stewardship*—of accountability to God for all the gifts, the powers and talents that He has entrusted to our care. These bodies, however we may pamper or abuse them, are not *our own*. They are sacred trust from the Almighty, for the

use and improvement of which we shall individually be held responsible in the great day of accounts no less than for mental talents and acquirements. When the inter-dependent relations of body and mind are considered in the true light with reference to the *life eternal*, it is scarcely possible to overstate or overestimate the *importance of physical culture*. ■